# WEEKLY "E" NEWS- from the RACI NSW 27th November 2008

Dear NSW RACI readers

Below are this week's announcements from the RACI NSW Branch, a summary is given and then scroll down for the full text.

**Positions Vacant:** Part-Time Casual Teachers Allied Health and Life Sciences (Life Sciences & Laboratory Technologies) Location: Ultimo College Sydney Institute. $64.86 per hour *Full details see page 3*

**APAI Scholarship available** UQ has an APAI scholarship (available to Hons IIA or Hons I students) for a student with a chemistry background and an interest in plant bioactives. *Full details see page 3*

**RACI Wall Planner 2009** Attention all Members – the 2009 Wall planner to be distributed in January 2009 is in the final stages of editing The coordinator hopes that the 2009 wall planner will be as accurate and as useful as possible - ***therefore she needs your help!*** *Full details see page 7*
***Whilst on the topic of the wall planner. Wondering how you can get the word out about your company or group to thousands of members all across Australia? Room on the wall planner still exists for some colour adverts. Please Contact Edwina to discuss advertising options***

**Information exchange sought.** Any chemist performing cation exchange HPLC and successfully using a Waters 2465 Electrochemical detector in DC mode for conductivity detection and willing to exchange methods and information, please contact:- Richard Fawdry, Principal Radiochemist, \Royal Prince Alfred Hospital, e-mail: rfawdry@nucmed.rpa.cs.nsw.gov.au, ph: (02) 9515 8011."

**RACI NSW One-Day Organic Chemistry Symposium 2008** 3rd December, School of Chemistry, The University of Sydney – *See page 8 for the full program of talks*. If you would like to register please email racinsw@chem.unsw.edu.au

**The 2009 Honours prize (RACI Western Sydney Section)** will be awarded for the best Honours thesis produced in 2008 by a student who is resident and/or has studied or undertaken research in western Sydney throughout the year. The RACI Western Sydney Section Honours Prize is now open. *Full details see page 6* ***Details have been updated***

**REQUEST FOR PROPOSAL DESCRIPTION** Kraft Foods, Inc., seeks proposals for a dry package gel dessert that rapidly forms a gel when reconstituted with ordinary tap water. *Full details see page 9*

**Website of the Week:** This week we look at **The Chemistry of Thanksgiving** http://www.popsci.com.au/scitech/article/2007-11/turkey-day-chemistry-kitchen

**Missed an edition of our weekly E-News?** We now have an archive of old editions! Please see

**http://www.chem.unsw.edu.au/RACI/News.html**

***Its here!!!*** **The New 2008/2009 Entertainment Book has arrived:** This book has been an important fundraiser for our branch the last few years. Purchase your brand new 2008/2009 Entertainment™ Book *now*

**Important Dates in Chemistry's History Nov 28-Dec 4** *We again will celebrate many famous chemists birthdays this week. Who turned down the Nobel Prize – in protest of Nazi oppression, or who discovered diamonds were pure carbon? find out here!*

**Please scroll down for further details.....**

SYDNEY INSTITUTE
TAFE NSW
Ultimo College

**Part-Time Casual Teachers**
**Allied Health and Life Sciences**
**(Life Sciences & Laboratory Technologies)**
**Location: Ultimo College**
**Sydney Institute.**
**$64.86 per hour**

## Job Reference No: 08/216/BS

*Applications are invited from suitably qualified and experienced persons who wish to be considered for placement on a suitability list to teach in the above area.*
**Applicants MUST obtain an Information Package by calling** 9217 4152 or by visiting www.jobs.nsw.gov.au

Short listed applicants will be subject to employment screening.
*Inquiries:. :* Paul Armson Head Teacher Ultimo (02) 9217 3947

**Closing Date: Friday, 12 December 2008**

# *APAI Scholarship available*

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

UQ has an APAI scholarship (available to Hons IIA or Hons I students) for a student with a chemistry background and an interest in plant bioactives.
This APAI scholarship is part of an ARC Linkage funded project with the Queensland Department of Primary Industries and Fisheries on bioactives contained in tropical fruit. You will work as part of a project team at the University of Queensland. This team includes researchers from the School of Pharmacy and the Centre for Nutrition and Food Sciences. You will also liaise with staff from the Queensland Department of Primary Industries and Fisheries. The researchers you will work with include academics, research higher degree students, research assistants and research fellows. The project will involve aspects of chemistry, metabolomics and high throughput biomolecular screening.

A/Prof Greg Monteith
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St Lucia Campus, Brisbane
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# RACI Wall Planner 2009

Attention all Members – the 2009 Wall planner to be distributed in January 2009 is in the final stages of editing
Planning for this Calendar is solely organised by the NSW Branch. Events for the Calendar have been taken from the information available from the National offices website. The coordinator hopes that the 2009 wall planner will be as accurate and as useful as possible - ***therefore she needs your help!***
Does your group or section already have an event set for next year? Provide Edwina with the details! Even if you think she may know about your event – she would not object to reminded about your event. Drop her an email at racinsw@chem.edu.au

***Whilst on the topic of the wall planner. Wondering how you can get the word out about your company or group to thousands of members all across Australia? Room on the wall planner still exists for some colour adverts. Please Contact Edwina to discuss advertising options***

# Information exchange sought.

Any chemist performing cation exchange HPLC and successfully using a Waters 2465 Electrochemical detector in DC mode for conductivity detection and willing to exchange methods and information, please contact:- Richard Fawdry, Principal Radiochemist, \Royal Prince Alfred Hospital, e-mail: rfawdry@nucmed.rpa.cs.nsw.gov.au, ph: (02) 9515 8011."

**RACI NSW One-Day Organic Chemistry Symposium 2008**
**3rd December, School of Chemistry, The University of Sydney**

| | |
|---|---|
| 8:30-9:10 | Registration |
| 9:10-9:15 | Opening Remarks |
| 9:15-9:40 | **Stephen Hashmi**, Heidelberg University, "Gold Catalysis: Reactivity Patterns, Mechanisms and Benefits for Synthesis" |
| 9:40-10:05 | **Nadim A. Darwish**, School of Chemistry, UNSW, "L and Straight Shaped Norbornylogus Bridges with Steady Feet for Surface Electron Transfer Studies" |
| 10:05-10:30 | **Jimmy Lee**, School of Chemistry, The University of Sydney, "Synthesis and Photoinduced Electron Transfer in Porphyrins-Fullerene Donor-Acceptor Systems" |

*Coffee*

| | |
|---|---|
| 11:00-11:25 | **Jacqueline Poldy**, Department of Chemistry, ANU, "Fooled by a Flower: the Seductive Chemistry of *Chiloglottis* Orchids" |
| 11:25-11:50 | **Daniel Goldstein**, School of Chemistry, UNSW, "The Synthesis of Iridium Bisterpyridine Cytochrome *c* Bioconjugates for Bioelectronic Applications" |
| 11:50-12:15 | **Caroline Nesbitt**, School of Chemistry, The University of Sydney, "A Formal Total Synthesis of (–)-Kumausallene" |

*Lunch and Poster Session*

| | |
|---|---|
| 1:45-2:10 | **Shiva Prasad**, School of Chemistry, UNSW, Photocatalytic Reduction of $NAD^+$ using tin(IV) porphyrins |
| 2:10-2:35 | **Stephen Butler**, School of Chemistry, The University of Sydney, "Cyclic peptide platforms as selective sensors for phosphate oxoanions" |
| 2:35-3:00 | **Thomas Fallon**, Research School of Chemistry, ANU "Double Additions to Dienynes" |

*Coffee*

| | |
|---|---|
| 3:30-3:55 | **Lidia Matesic**, School of Chemistry, University of Wollongong, "*N*-Alkylisatins as Potent Cytotoxins" |
| 3:55-4:20 | **Fiona Ky**, School of Chemistry, The University of Sydney, "Real-time Monitoring of Asymmetric Reactions by Polarimetry" |
| 4:20-5:00 | **Jackie Gervay-Hague**, University of California, Davis, "Synthesis of Sulfone-based Nucleotide Isosteres: Identification of CMP-Synthetase Inhibitors" |
| 5:00-5:15 | Closing Remarks and Awards |

*BBQ and drinks at the School of Chemistry*

We gratefully acknowledge generous sponsorship by the following

# Do you supervise Hons students?

# Did chemistry provide a solution?

# Is your student eligible for an RACI prize...

## ... of $200 and one year's RACI membership?

**YOUR HONOURS STUDENTS have had some sleep since finishing their thesis – NOW is a good time to consider their eligibility for the 2009 Honours prize (Western Sydney Section)** if they reside, or have done their research, in Western Sydney. **ALL WE NEED IS AN EXTRA COPY OF THEIR THESIS.** NO NEED to wait for examiners' reports. Deadline 31st March, 2009; earlier submissions encouraged. Contact Deidre Tronson, deidre@bowtie.com.au ****Please pass this information on to any colleagues in other departments who have Hons students who may be eligible***

**The 2009 Honours prize (RACI Western Sydney Section) will be awarded for the best Honours thesis produced in 2008 by a student who is resident and/or has studied or undertaken research in western Sydney[1] throughout the year.**

**The RACI Western Sydney Section Honours Prize is now open to ....**

... eligible applicants may be enrolled in ANY University, within ANY department/school/faculty. The project must include either 'pure' or 'applied' **chemistry**. This could be applied to fields such as agriculture, horticulture material science, nanotechnology, pharmacy, neuroscience, medicine, biochemistry, biology, environmental analysis, forensics, or any other discipline.

The winner will give an oral presentation at a meeting of the Royal Australian Chemical Institute Western Sydney Section during 2009 (date to be determined). **This is an opportunity to showcase the research to a range of RACI members and other students.**
The prize will be awarded to a project that demonstrates a high level of innovation, creativity and contribution to chemical knowledge. If more convenient, the thesis may be spiral- or 'perfect'-bound and may be submitted prior to examination because the final grade is not a determining factor.
**It is easy to apply. Students only need to forward a copy of the thesis, plus a covering letter containing personal details (including student's email address), to one of the contacts below. The thesis will be returned.**

## DEADLINE: MARCH 31ST 2009. Earlier submission is encouraged

**Enquiries and submission to:**
Dr Deidre Tronson (FRACI), 21 Eagle Creek Rd, Werombi, 2570.
Ph 02 4653 1430; email: deidre@bowtie.com.au.
**OR** leave the thesis, **clearly marked "WSS Honours Prize",** at the RACI office, UNSW.

[1] 'Western Sydney" is defined by the following postcodes: 2076-2077; 2111-2126; 2128; 2133; 2140-2168; 2170;2171; 2173; 2174; 2176; 2177; 2190-2200; 2205-2214; 2216-2234; 2558-2560; 2563-2579; 2745; 2747-2768; 2770; 2773-2787; 2790

# REQUEST FOR PROPOSAL DESCRIPTION

**Kraft Foods, Inc., seeks proposals for a dry package gel dessert that rapidly forms a gel when reconstituted with ordinary tap water.**

**Opportunity**
Development contract for proof-of-concept leading to commercial scale up, and/or supply agreement or exclusive licensing agreement for existing solution
**Timeline**
Phase 1 – Proof of concept within 6 months
Phase 2 – Consumer testing and optimization for commercialization within 6 months
**Financials**
Phase 1 – Proof of concept funding commensurate with proposed activity
Phase 2 – Additional funding if Phase 1 is successful
Contact john@anotec.com.au for more information.

## Website of the Week

**The Chemistry of Thanksgiving**
http://www.popsci.com.au/scitech/article/2007-11/turkey-day-chemistry-kitchen

*What makes Thanksgiving such a complicated meal? Family dynamics are tough enough to decode without the added pressure of figuring out a multi-course feast. PopSci is here to help you understand some of the science of Thanksgiving dishes in order to make your meal easier-and more fun-to prepare.*

# Important Dates in Chemistry's History Nov 28-Dec 4

**28**

**b. 1902 Maurice Arveson**, authority on petroleum technology.

- Announcement of first pure compound of berkelium (Bk, 97) based on work at University of California, Berkeley, 1962.

**29**

**b. 1849 Georg E. E. Wagner**, researcher in terpene chemistry, permanganate hydroxylation of alkenes, & Wagner-Meerwein rearrangements.

**b. 1896 Kaj Ultrik Linderstrom-Lang**, studied dynamics of proteins, structure of enzymes and proteins.

**b. 1936 Yuan T. Lee** used specially designed mass spectrometer that could separate & identify reaction products; Nobel Prize (1986) with Dudley R. Herschbach & John C. Polanyi for their contributions concerning the dynamics of chemical elementary processes.

**b. 1947 Robert A. Swanson**, cofounded Genentech, Inc. (1976), a research-based company that pioneered the biotechnology industry with Herbert Boyer; developed technique for possibility of the transfer of genes from one organism to another; Genentech began mass- producing their first human protein by splicing a gene into bacteria; Genentech (1978) created first drug produced by genetic engineering, human-type insulin and first company to sell its own drug, human growth hormone.

- The Chemists' Club held its first meeting, 1898.
- Monsanto Chemical Works incorporated, 1901. Renamed Monsanto Chemical Company, 1965.

**30**

**b. 1761 Smithson Tennant** discovered iridium (Ir, 77) 1803, & osmium (Os, 76) 1803; proved that diamonds are pure carbon.

**b. 1915 Henry Taube**, researcher in electron transfer reactions; Nobel Prize (1983) for his work on the mechanisms of electron transfer reactions, especially in metal complexes.

**b. 1920 Bruno H. Zinn**, research in DNA properties amd groundwork for genomics; NAS.

- Monsanto Chemical Co., organized, 1901.
- Chlorotetracycline, a broad spectrum antibiotic, isolated by B. M. Duggar, American Cyanamid Corporation, 1948.
- The first of five communications in the *Journal of the American Chemical Society*(**1965**, *87*, 395) by Robert B. Woodward and Roald Hoffman on how stereochemical outcome of pericyclic reactions are governed by symmetry properties was received on this date in 1964.

**December 1**

**b. 1743 Martin H. Klaproth** discovered zirconium (Zr, 40) 1789, uranium (from pitchblende) (U, 92) 1789, & cerium (Ce, 58) with J. Jacob Berzelius & William Hisinger, 1803; also chromium (Cr, 24) previously discovered by N. L. Vauquelin, 1797.

- First production of calcium cyanamide in North America, American Cyanamide Co., 1909.

**2**

**b. 1859 Ludwig Knorr** synthesized heterocyclic compounds.

**b. 1867 Nikolai M. Kishner** contributed to the Wolff-Kishner reduction of aldehydes and ketones.

**b. 1921 Isabella L. Karle**, researcher on three-dimensional structure for molecules using x-ray and electron diffraction.

- First atomic pile produced first self-sustained nuclear chain reaction under Stagg Field, University of Chicago, 1942.

**3**

**b. 1886 Karl Manne Georg Siegbahn**, researcher on x-ray spectroscopy; Nobel Prize in Physics (1924) for his discoveries and researching the field of X-ray spectroscopy.

**b. 1900 Richard Kuhn**, researcher on structures & syntheses of vitamins & cartenoids; refused Nobel Prize in 1938 due to Nazi rules but received it in 1949; for his work on carotenoids and vitamins.

**b. 1933 Paul Crutzen**, researcher in chemistry of the atmosphere; Nobel Prize (1995) with Mario Molina and F. Sherwood Rowland for their work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone.

**4**

**b. 1867 C. H. Herty**, chemistry of natural resources; established the manufacture of paper from Georgia pines; ACS Presdent.

**b. 1908 Alfred D. Hershey**, researcher in microbial genetics; Nobel Prize in Medicine (1969) with Max Delbru¨ck and Salvador E. L. Kuria for their discoveries concerning the replication mechanism and the genetic structure of viruses

Ref: Monthly Historical Events In Chemistry by Leopold May, The Catholic University of America
http://faculty.cua.edu/may/Chemistrycalendar.htm